

## REMARKS

Claims 1-20 remain pending in this application. Claims 1-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,652,764 to *Kanzaki*, et al. (hereinafter “*Kanzaki*”) in view of U.S. Patent No. 6,252,865 to *Hayashi*. By this amendment, claims 1, 6, 11, and 16 are amended without adding any new subject matter and claims 2, 5, 10, 12, 15, 17, and 20 are cancelled without prejudice.

As amended, the communication method of claim 1 includes time division multiplexing each of the plurality of encoded pilot signals with data and transmitting each of the plurality of encoded pilot signals substantially simultaneously with said data on a different antenna. Support for the claim amendments can be found on page 2, lines 8-10, 15-17, and 33-34, in the Applicants’ specification. During the time slots, a sample of the carrier signal or pilot signal is time division multiplexed with the data in the time slot, and thus, a mobile station may coherently receive the transmissions. That is, in a wireless communication system, data may be substantially simultaneously transmitted over different antennas such that a receiver may distinguish which pilot or carrier sample is associated with each antenna.

However, the *Kanzaki* reference is silent as to encoding of a first pilot signal from a first antenna with a first code, encoding of a second pilot signal from a second antenna with a second code, and substantially simultaneous transmission of the first and second encoded pilot signals with data on different antennas. Rather, the radio communication system of the *Kanzaki* reference simply spreads the transmission data through a plurality of orthogonal codes instead of encoding a plurality of pilot signals and transmits the modulated transmission data from a plurality of different antennas without synchronizing the transmission of the plurality of pilot

signals across antennas. *See*, column 2, lines 14-16 and claim 1 in the *Kanzaki* reference. Therefore, the *Kanzaki* reference teaches away from substantially simultaneously transmitting the encoded pilot signals with data on different antennas.

Further, the *Hayashi* reference fails to teach or suggest a communication method in which time division multiplexing of each of the plurality of encoded pilot signals with data is accomplished. Instead, in a single time slot, a signal is composed for transmission using both the spread pilot signal and the spread information signals for different mobile stations. *See*, column 9, lines 27-30 in the *Hayashi* reference. Accordingly, either considered in combination with the *Kanzaki* reference or alone, the *Hayashi* reference fails to time division multiplex the plurality of encoded pilot signals with data, and thus, does not render all of the limitations in claim 1 obvious in a *prima facie* manner to one skilled in the pertinent art. Therefore, claim 1, as amended, is in condition for allowance, which is respectfully requested of the Examiner. For the same reasons for which the independent claim 1 is deemed patentably distinguishable over the cited art, the claims depending from claim 1 are also allowable. In this way, the Examiner is respectfully requested to reconsider § 103 rejection of claim 1 and claims depending therefrom.

Based on the same reasons as set forth above in the context of claim 1, the communication method of claim 6, as amended, is also patentably distinguishable over the cited art. Therefore, the Examiner is respectfully requested that the § 103 rejection of claim 6 based on the *Kanzaki* and *Hayashi* references should be withdrawn.

None of the cited references teach, or suggest the newly added limitations to claim 11. As amended, claim 11 now calls for a communication method that includes time division multiplexing each of the plurality of encoded carrier signals with data and transmitting each of

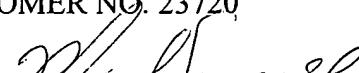
the plurality of encoded carrier signals substantially simultaneously with the data on a different antenna. Whether considered in combination or separately, the *Kanzaki* and *Hayashi* references fail to render all the claim limitations in claim 11 obvious in a *prima facie* manner to one of ordinary skill in the pertinent art. Thus, as amended, claim 11 is in condition for allowance. Therefore, it is respectfully submitted that the Examiner reconsider the § 103 rejection of claim 11 and claims depending therefrom.

For at least the same reasons as applied to claim 11, the communication method of claim 16 is also in condition for allowance. In this manner, the Examiner is respectfully requested to reconsider the amended claim 16. The Examiner is respectfully requested to consider all pending claims.

In view of these amendments and remarks, the application is now in condition for allowance and the Examiner's prompt action in accordance therewith is respectfully requested. If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Houston, Texas telephone number (713) 934-4052 to discuss the steps necessary for placing the application in condition for allowance.

Respectfully submitted,  
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